

# United States Patent [19]

Vershure, Jr.

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[54] AIRCRAFT ENGINE STARTING AND EMERGENCY POWER GENERATING SYSTEM

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[58] Field of Search ..... 60/39,142, 39.15, 39.33, 60/712, 727; 192/48.9, 48.91, 87.14, 87.16; 244/58

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[57] ABSTRACT

The problem of excessive weight in an aircraft 10 powered by at least one turbine engine 12 as a result of the incorporation of both a starter for the turbine engine 12 and a source of emergency power is avoided by utilizing a turbine wheel 62 to alternatively start the engine 12 or drive an emergency power generator 102. The turbine wheel 62 may be driven either by compressed air from a ground source 34 or an engine bleed 32 or, in the alternative, by hot gases of combustion from a stored energy source 36 in an emergency situation.

10 Claims, 1 Drawing Sheet

